

CLAIMS

1. A method for monitoring the performance of an apparatus having user serviceable components, comprising the steps of:
 - performing initial calibration procedure to produce a first performance metric;
 - performing a subsequent calibration procedure to produce a second
 - 5 performance metric;
 - comparing said second performance metric with said first performance metric,
 - and
 - outputting a performance factor indicative of a change in performance resulting from a change in the user serviceable components.
2. The method of Claim 1 further comprising the step of sending a notification that said performance factor has crossed a predetermined threshold.
3. The method of Claim 1 further comprising the step of disabling the apparatus if the performance factor has a crossed a predetermined threshold
4. The method of Claim 1 wherein said initial calibration procedure is performed prior to the time a user serviceable component is replaced.
5. The method of Claim 1 wherein said initial calibration procedure is performed at the time of manufacture of the apparatus.
6. The method of Claim 1 wherein said subsequent calibration procedure is performed when one of the user serviceable components is replaced.

7. The method of Claim 1 further comprising the step of communicating said performance factor to a service provider.

8. The method of Claim 7 wherein said communicating step is accomplished via the Internet.

9 A method for monitoring the performance of an apparatus comprising the steps of:

- performing initial calibration procedure to produce a first performance metric;
- detecting the presence of a third party user serviceable component by
- 5 identifying the absence of a predetermined electronic label;
- performing a subsequent calibration procedure to produce a second performance metric;
- comparing said second performance metric with said first performance metric,
- and
- 10 outputting a performance factor indicative of a change in performance resulting from the use of said third party user serviceable component.

10 A method of identifying the presence of third party replacement consumables in an apparatus the method comprising the steps of:

- reading first information indicative to an amount of consumption of a consumable from an electronic label for an originally installed user serviceable
- 5 component;
- storing said first information;
- subsequently repeating said reading step to produce second information indicative of an amount for consumption, and
- comparing said second information with said first information thereby
- 10 identifying an increase in the amount of the consumable;

outputting a replacement indicator indicative of an increase in the quantity of said consumable.

11. A method of identifying invalid service claims for an apparatus having user serviceable components, comprising the steps of:

- performing initial calibration procedure to produce a first performance metric;
- performing a subsequent calibration procedure to produce a second
5 performance metric;
- comparing said second performance metric with said first performance metric;
- outputting a performance factor indicative of a reduction in performance
resulting from a change in the user serviceable components with a third party user
serviceable component, and
- 10 determining the validity of a subsequent service claim according to said
performance factor.

12. The method of Claim 11 further comprising the step of establishing the cost of providing service for the apparatus according to said determined validity of the service claim.

13. A method of identifying invalid service claims for an apparatus, wherein certain originally installed user serviceable components include an electronic label, the method comprising the steps of:

- performing initial calibration procedure to produce a first performance metric;
- 5 detecting the presence of a third party user serviceable component by
identifying the absence of a proper electronic label;
- performing a subsequent calibration procedure to produce a second
performance metric;
- comparing said second performance metric with said first performance metric;

10 outputting a performance factor indicative of a change in performance
resulting from the use of said third party user serviceable component; and
 determining the validity of a subsequent service claim according to said
performance factor.

14. The method of Claim 13 further comprising the step of establishing the
cost of providing service for the apparatus according to said determined validity of
the service claim.

15. An apparatus having user serviceable components enabled to monitor
its own performance, the apparatus comprising:

 means for performing an initial calibration procedure to produce a first
performance metric;

5 means for performing a subsequent calibration procedure to produce a second
performance metric;

 means for comparing said second performance metric with said first
performance metric; and

 means for outputting a performance factor indicative of a change in
10 performance resulting from a change in the user serviceable components.

16. The apparatus of Claim 15 wherein said means for outputting further
provides a notification when said performance factor has crossed a predetermined
threshold.

17. The apparatus of Claim 15 further comprising a means for disabling
the apparatus if said performance factor has a crossed a predetermined threshold

18. The apparatus of Claim 15 wherein said means for performing an
initial calibration procedure operates at the time of manufacture of the apparatus.

19 The apparatus of Claim 15 wherein said means for performing said subsequent calibration procedure when one of the user serviceable components is replaced.

20. The apparatus of Claim 15 further comprising a means for communicating said performance factor to a service provider.

21. The apparatus of Claim 20 wherein said means for communicating interfaces to the Internet.

22. The apparatus of Claim 15 wherein said apparatus is a printer.

23 An apparatus having user serviceable components, the apparatus being operable to monitor its own performance and comprising:

 means for performing initial calibration procedure to produce a first performance metric;

5 means for detecting the presence of a third party user serviceable component by identifying the absence of a predetermined electronic label;

 means for performing a subsequent calibration procedure to produce a second performance metric;

10 means for comparing said second performance metric with said first performance metric; and

 means for outputting a performance factor indicative of a change in performance resulting from the use of said third party user serviceable component.

24 An apparatus having user serviceable components, certain of which have electronic labels, and having consumables in the user serviceable components, the apparatus, comprising:

- means for reading first information indicative of an amount of consumption of
- 5 a consumable from an electronic label for at least one originally installed user serviceable components;
- a memory for storing said first information;
- means for subsequently reading second information indicative of an amount for consumption of said consumable from said electronic label;
- 10 means for comparing said second information with said first information thereby identifying an increase in the amount of the consumable; and
- means for outputting a replacement factor indicative of an increase in the quantity of said consumable.